

Color dark brownish-lead, below dirty white. The almost black of the sides bounded below by an irregular pale border, below which are some dark marblings. The same border extends, with an axillary interruption, to the orbit, and continues on the upper lip as a series of light dots. A light band commences at the groin above, and extends to opposite the sacrum, converting the dark color of the side into a half-band. Femur and tibia dark, marbled before and behind.

From the river Truando, New Grenada. Brought by the expedition under Lieut. Michler, by Arthur Schott. This species and the *Dendrobates tinctorius* Wagl. were accidentally omitted from the report of this expedition, published in Proc. Acad. 1862, 355.

BUFO ARGILLACEUS Cope, sp. nov.

Ridges of cranium superciliary and supratympanic; no parietal branch. Parotoids elongate trigonal, the long angle prolonged towards the sides. Two weak metatarsal tubercles. A tarsal dermal fold; toes little webbed. Muzzle elongate, not much depressed or projecting beyond labial border. No preorbital ridge; superciliaries nearly parallel. Skin rather finely rugose.

Males olive-grey; females with a pale vertebral line, and a series of brown spots on each side of it. Crown, lips, and below unspotted. Length of head and body 2 in. 9 l.

This species is to be compared with the *B. granulatus* of Spix, which it represents in another region. It differs in lacking the preorbital ridge, and having a longer muzzle.

Numerous specimens in Museum Smithsonian from Colima, Western Mexico, from U. S. Consul, John Xantus.

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Second Supplement on some New Raniformia of the Old World.

TOMOPTERNA LABROSA Cope, sp. nov.

Head raniform, little elevated; end of muzzle recurved, loreal and suborbital regions concave, the edge of the maxillary region strongly projecting. From orbit to margin of jaw below it less than diameter of tympanum, two-thirds that of orbit. Tympanum elliptic, subvertical, about .66 long diameter eye fissure, latter .2 greater than from edge of same to external nostril, and 1.5 least interorbital width. Frontal and prefrontal regions slightly grooved medially. Vomerine teeth in two very short, nearly transverse, lines opposite the middle margin of the inner nares. Latter large, about equal to ostia pharyngea.

When the limbs are extended the carpus attains the end of the muzzle, and the heel the middle of the orbit. Tarsus equal third toe without last two phalanges. Cuneiform shovel small for the genus, equal inner toe less the last phalange. Webs large, measuring .66 the third and fifth toes. Thumb longer than second and fourth fingers. Skin of upper surfaces with numerous narrow irregular folds; eyelids slightly rugose behind. A strong fold above the tympanum decurved behind it.

| | In. | Lin. | | In. | Lin. |
|-------------------------------|-----|------|------------------------|-----|------|
| Total length head and body... | 2 | 4.5 | Length tarsus..... | 6 | |
| “ “ hind limb..... | 3 | 4.5 | “ foot..... | 1 | |
| Length tibia..... | | .13 | Width head behind..... | 1 | |

Color above gray-olive, with paired blackish spots, on each side a light vertebral band. The anterior of these are a triangular blotch on top of muzzle and band across middle of each eyelid. Side of head blackish-gray with a pale gray band on end of muzzle, one from front of orbit to lip, and one below eye, longitudinally past lower edge tympanum bordered by blackish from orbit backwards. Femur with three, tibia with four, and outer edge foot with four blackish-gray cross-bars; femur pale-brown behind.

[March,

This species is more slender in form than the others of the genus, and exhibits a fuller palmation of the feet; it does not differ more from the species of *Hoplobatrachus* Pet. than the *Ranae* do among themselves. One spec. (282) has the whole upper surface of the head, and a broad vertebral band yellow. Of the types are two specimens (No. 283) in Museum Comparative Zoology, Cambridge, all from Madagascar, presented to Prof. Agassiz by G. W. Goodhue.

TOMOPTERNA POROSA Cope, sp. nov.

Toes nearly completely webbed, 2·3 phalanges of the fourth toe free. Muzzle obtuse ovate from above, decurved in profile, as long as diameter of eyeslit. Top of front and muzzle plane, canthus distinct, contracted, obtuse loreal region with a longitudinal concavity. Tympanum round, nearly as large as eye, distinct. From orbit to maxillary border ·66 diameter tympanum; lip rather prominent below orbit. Vomerine teeth in two fasciculi opposite middle or hind margin of choanae, nearer each other than margin. Choanae smaller than the large ostia.

Fingers with very small web at base, thumb longer than second, equal fourth. Tarsus of extended limb beyond end muzzle; heel to front of orbit. Tarsus 2·3 times in longest toe. Cuneiform shovel 2·66 times in tarsus.

| | In. | Lin. | | In. | Lin. |
|----------------------------|-----|------|----------------------------|------|------|
| Length head and body | 2 | 1·75 | Length head to tympanum | | |
| Hind limb | 3 | 3·75 | behind..... | 8·25 | |
| Tibia..... | | ·11 | Width head same point..... | 9· | |
| Hind foot..... | 1 | ·7 | | | |

A glandular dermal fold from above tympanum to above groin on each side; the greater part of the eyelid glandular and covered with pores. A glandular fold from angle mouth to behind above axilla. No tarsal folds.

Color above brown, with dark-gray shades; in one specimen an imperfect pale-gray vertebral line. Under surfaces white, sides coarsely and handsomely marbled with brown and white below and gray above. Head dark-brown, a pale line on the lip, a slight margin to lower lip. Femur brown with pale marblings.

This species is abundantly different from those hitherto known, and seems to indicate that the genus *Hoplobatrachus* Peters is less distinct from *Tomopterna* than hitherto supposed.

Three specimens (No. 305), Agassiz' Mus. Compar. Zoology, Cambridge, Mass. From Kanagawa, Japan. From Dr. Jas. T. Gulick.

HYLORANA LEPTOGLOSSA Cope, sp. nov.

This species is most nearly allied to the *H. temporalis* Günther of Ceylon. The points of difference are *italicised* in the following description:

Hind limbs as in *H. temporalis*, and the fourth toe is only ·33 longer than the third and fifth. Two well marked metatarsal tubercles. Vomerine teeth in two very short oblique rows commencing opposite the posterior margins of the choanae and directed backwards; they are about as far from each other as from choanae. *Tongue narrow, not filling rami of jaws.* Tympanum as large as eye; *latter contained 1·5 times in length of muzzle, extending beyond nostril.* A heavy glandular dorsolateral fold, *separated by a groove from another interrupted one below it.* A deep groove from axilla to near groin. *A short glandular fold from angle of mouth.* Muzzle flattened acuminate at the end. Heel of hind limb to front of orbit. Fourth toe more than half length head and body; *no dermal fold on upper edge of tarsus.*

Above olivaceous, with a blackish band from end muzzle to groin, margined with yellow below, from below eye to axilla. Pale yellow below, sides blackish spotted. Femora behind black, yellow veined. Limbs paler, rather closely cross-barred.

| | Lin. | | Lin. |
|---------------------------|------|------------------------------|------|
| Length head and body..... | 21·5 | Width head behind tympanum.. | 7·75 |
| " hind limb | 20· | Length hind foot | 14·5 |

1868.]